

ABSTRACT OF THE DISCLOSURE

[0058] The velocity of detonation of an explosive such as detonating cord (18, 22) is controlled by the addition of a diluent to the explosive, e.g., to the core of the detonating cord (18, 22). An explosively inert diluent, or a diluent comprised of an explosive of lower brisance than the principal explosive comprising the core of the detonating cord, will serve to reduce the velocity of detonation. Such reduced velocity of detonation has beneficial effects in certain operations, including cleaving rock (10), wherein it is observed to significantly reduce radial cracks (24) and stickers (26) (long radial cracks) in the vicinity of the boreholes (12) in which the low-velocity detonating cord (18, 22) is functioned to cleave the rock (10). The low-velocity detonating cord also facilitates leaving behind a smoother face in cutting trenches and tunnels through rock. The method of manufacture of low-velocity detonating cord includes incorporating a suitable diluent, such as phenolic microballoons, into an explosive core of, e.g., PETN.

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